The Small Arms Production Base

MANEUVER AMMUNITION SYSTEMS

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Maneuver Ammunition Systems

(PM-MAS)

MANEUVER AMMUNITION SYSTEMS

Government Small Caliber Ammo Production Base

WW II 16 Plants

Lake City Ordinance Plant – Remington Arms

Twin Cities Ordinance Plant – Federal Cartridge Co.

St. Louis Ordinance Plant – Western Cartridge Co.

Frankford Arsenal – Government

Denver Ordinance Plant –

Bridgeport PEP – Remington Arms

New Haven PEP – Winchester Western

Des Moines Ordinance –

Utah Ordinance –

Eau Claire Ordinance –

East Alton Ordinance –

Kings Mills Ordinance –

Evansville Ordinance –

Milwaukee Ordinance –

Allegany Ordinance –

Lowell Ordinance –

PEAK OUTPUT	WW II
Cal. 30	900M/mo
Cal.30 carbine	227M/mo
Cal.45 ball	250M/mo
Cal. 50	500M/mo
	1877M/mo

1.877B/mo

Korean War 6 Plants

Lake City Ordinance Plant

St. Louis Ordinance Plant

Twin Cities Ordinance Plant

Frankford Arsenal

New Haven PEP

Bridgeport PEP

Viet Nam 5 Plants

Lake City Army Ammunition Plant

Twin Cities Army Ammunition Plant

Frankford Arsenal

New Haven PEP

Bridgeport PEP

Today 1 Plant

Lake City Army Ammunition Plant

Peak Output 1.2B/yr

100M/mo

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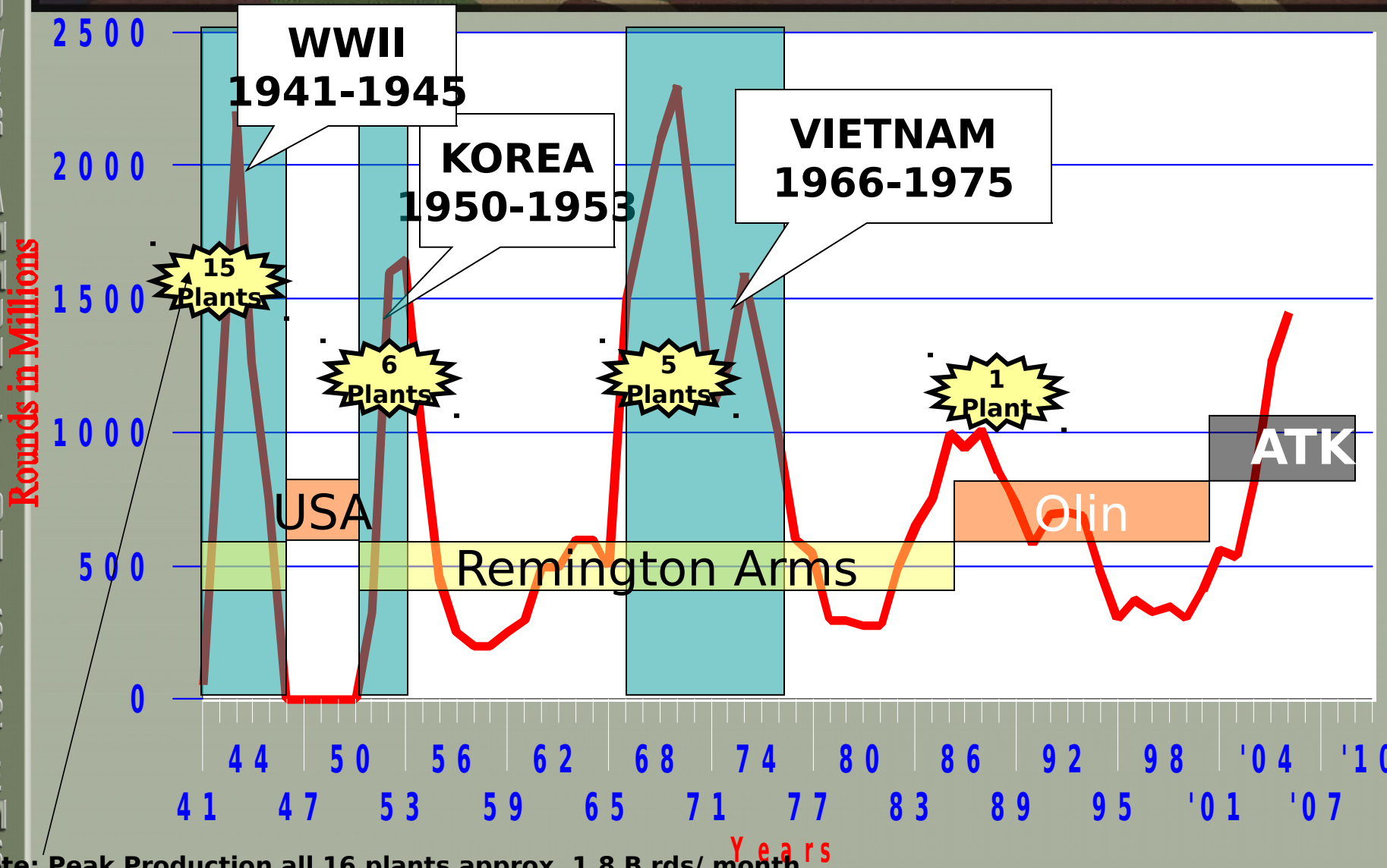
GOCO Production History



Note: Peak Production all 16 plants approx. 1.8 B rds/ month

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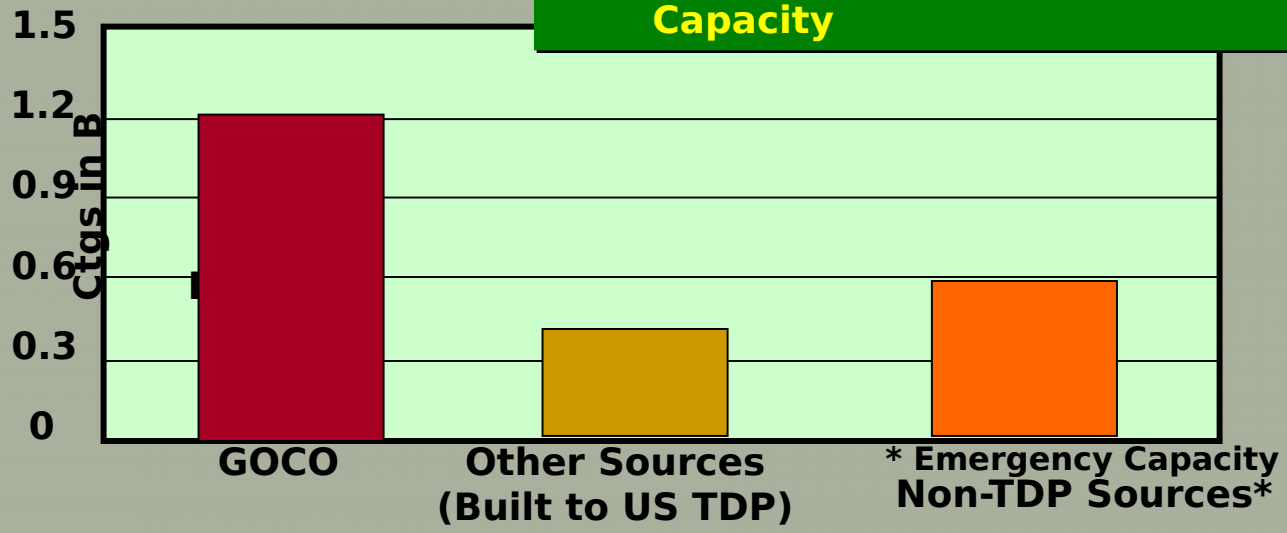
Small Cal Base Capacity

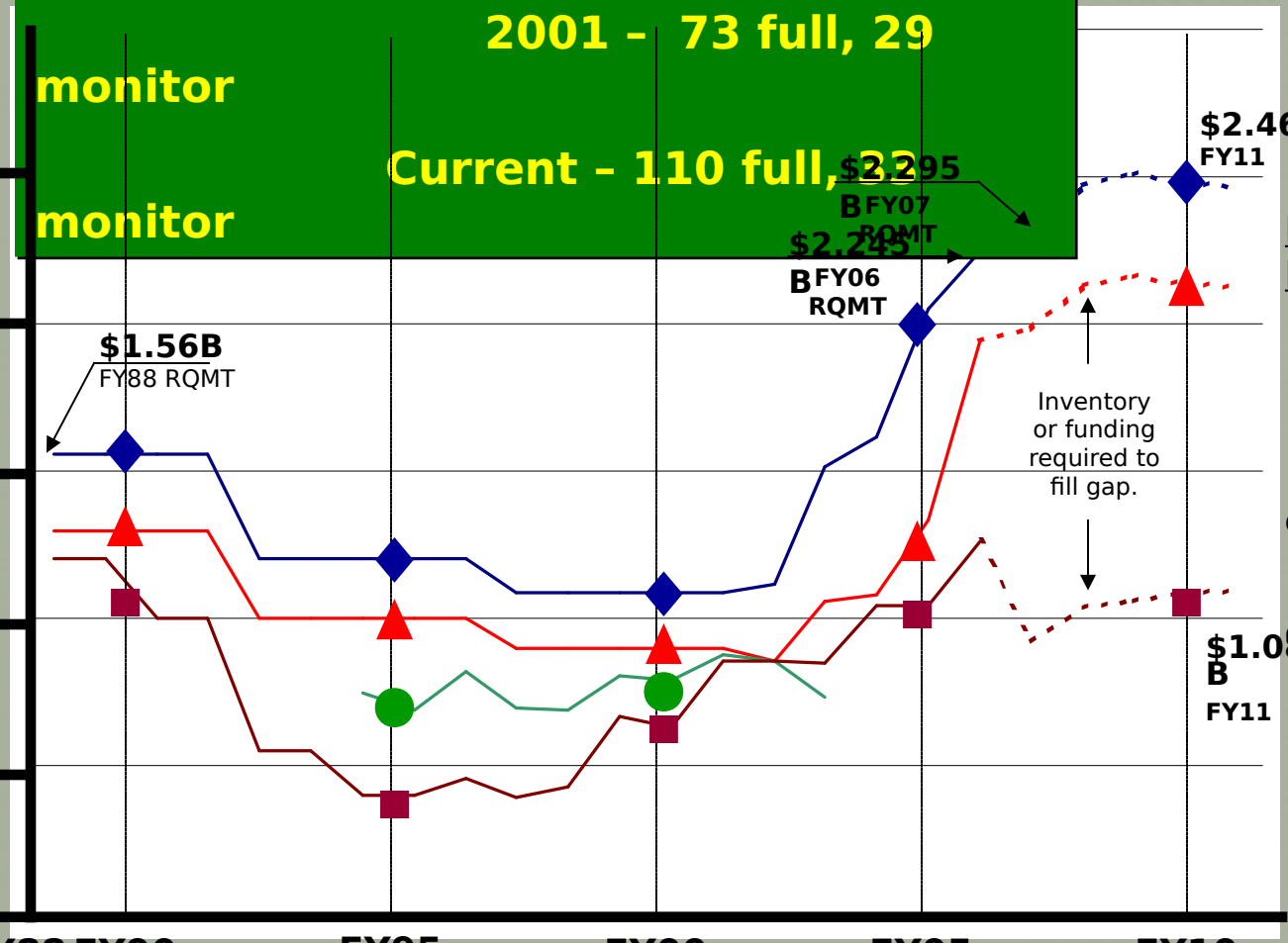
- **Sources Available**
  - GOCO Primary Producer at Current 1.2B Capacity
  - Identified 350M Commercial Capacity of US Spec Ammo
  - Identified 500M Additional Sources NATO and Similar Capacity

Base Capacity 1.550B



ARMY TRAINING AMMUNITION REQUIREMENTS / FUNDING TRENDS

- CALS GROWTH: 1995 – 30 full monitor
  2001 – 73 full, 29 monitor
  Current – 110 full, 22



MAJOR COST DRIVERS:

- **Modernization**
- **Stockpile depleted**
- **Force structure changes**
- **STRAC / POI changes**
- **Available Inventory**

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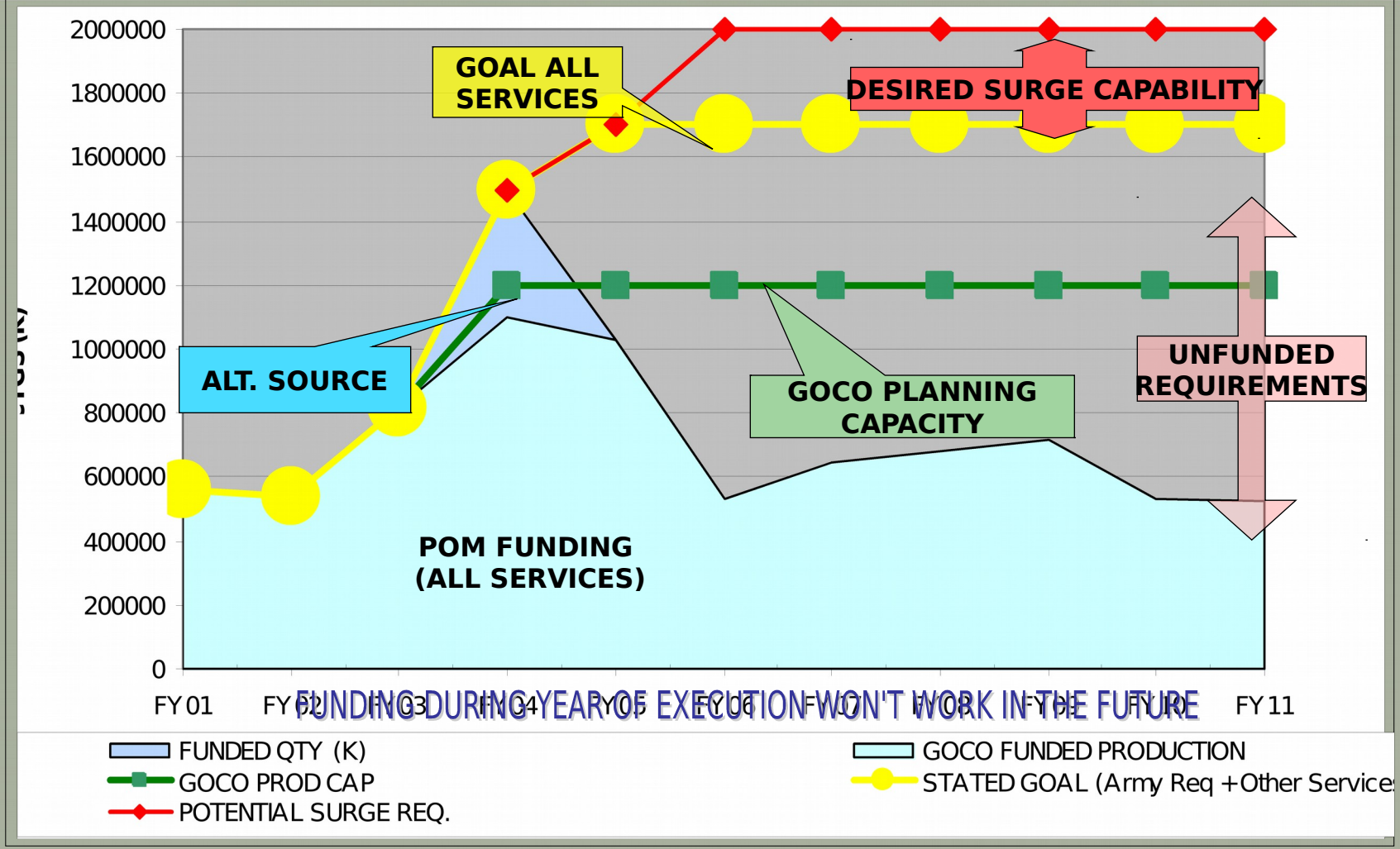
SMALL CAL AMMO SCENARIOS



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Small Cal Base Risks

- **Age**
  - Most GOCO plant buildings, part of equipment and infrastructure date to WW II
- **Single Point Risks**
  - TNR reactor
  - DISRUPTION OF PRIMER PRODUCTION LONGER THAN 3 WEEKS
  - Most efficient operation drives many sole/single source
- **Unique TDP**
  - Ammo planned for use in a wide variety of weapons
  - Ammo required to function all over world
  - Changes in weapons platforms offer opportunity to adjust TDP for more affordable production
- **Preservation of current investment**
  - Mechanism needed to preserve current capacity when requirements go down in future
  - Funding to layaway and maintain current capacity will be needed or base will shrink once again
  - Each time it becomes more difficult to bring back
- **Future Planning**
  - Need to define production line needs to deal with fluctuating requirements
  - A long term plan needs to be developed for flexible and sustainable small caliber production base

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Industrial Base Actions

- **Industrial Base**
  - **LCAAP Modernization**
    - **Update production equipment**
    - **Automate primer manufacture**
    - **Increase automatic inspection systems**
    - **Capacity expanded to 1.5B per year**
  - **Second Source**
    - **Establishes ready access to elements of the commercial base through a previously contracted agent**
    - **Capacity established at 300M to 500M per year**
  - **TDP Improvements – reduce unnecessary production costs**
    - **Tolerance study bullet and case**
    - **Metallurgical requirement evaluation.**
    - **Ignition train review (alternate propellant study)**